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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,706	05/11/2001	Richard R. Beckman	83,099	7509

26384 7590 09/17/2003

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[REDACTED] EXAMINER

CHIN, GARY

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No.	Applicant(s)
	09/905,706	BECKMAN ET AL.
	Examiner Gary Chin	Art Unit 3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>6</u> .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification as originally filed has failed to describe the claimed invention in a full, clear and concise manner. The specification as filed is more like a thesis or a technical report. In the absence of a clear, full and concise disclosure, one of ordinary skill in the art cannot make and use the same without undue experimentation.

3. Applicant is required to file a substitute specification to rectify the aforementioned defect in accordance with the patent application format. Applicant is further required to provide the supports for the newly submitted figures 5-7.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-16 are further rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, line 4, “the single position marker” should be “the sea borne position marker” in order to avoid the antecedent basis problem. Further, on line 11, the recitation therein is contextually unclear. It appears that “Pp(n)” should be deleted. On line 12, “state updater’s estimate” should be “the state updater’s estimate”. On line 17, “a sea borne position marker” should be “the sea borne position marker”. Finally, on line 19, “submersible” should be “underwater” to be consistent.

As per claims 2, 8, 15 and 16, again, the word “submersible” should be “underwater” respectively.

As per claims 5, 8-10 and 12-14, the word “vessel” recited therein should be “underwater vehicle” respectively.

As per claim 2, line 14, “measured depth and bathymetry data” should be “the measured ocean depth and the bathymetry data” to avoid the antecedent basis problem.

As per claim 7, the recitation therein is incomplete.

As per claim 8, it is unclear as to the function performed by each of the structural elements recited on lines 3-9. Further, on line 10, “system observer” should be “said system observer subsystem” to be consistent. On line 12, the recitation therein is contextually unclear. It is suggested to insert the word “and” before “a final predicted state” to rectify the problem. Finally, on lines 13-14, the antecedent basis for “the measured slant range”, “the location of the known point” and “the final estimate” has not been respectively set forth in the claim.

As per claim 11, lines 1-2, “the underwater vehicles spatial performance” should be “the terrain matching module’s performance” to avoid the antecedent basis problem.

As per claim 12, line “steady state Kalman filter” should be “steady state extended Kalman filter”. Further, on line 2, “a terrain based state estimate” should be “the terrain based state estimate”. Moreover, the antecedent basis for “the linear filter’s state estimate” in both claims 12 and 13 has not been set forth in these claims. In addition, the term “system observer” on line 3 of claim 13 should be “system observer subsystem”.

As per claim 15, line 12, “ocean depth and bathymetry data” should be “said measured ocean depth and said bathymetry data”. Further, “underwater vehicles position” on line 12 should be “underwater vehicle’s position”.

As per claim 16, is the “computer” recited on line 5 directed to the same on line 1? If so, “said computer” should be recited, otherwise, distinction should be made between them.

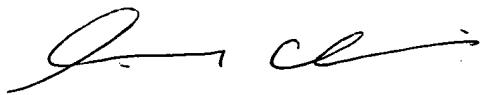
Claim(s) that have not been specifically indicated is/are rejected for incorporating the above error(s) from its/their parent claim(s) by dependency.

6. In view of the aforementioned 112 defects, no attempt has been made by the examiner to apply prior art against the claims. Because guesswork is needed as to what is actually being claimed. However, applicant is strongly urged to considered the cited reference carefully and to distinguish them against the claims in accordance with 37 CFR 1.111(C) so that the instant application can be expeditiously prosecuted.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Chin whose telephone number is (703) 305-9751. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Cuchlinski can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



**GARY CHIN
PRIMARY EXAMINER**